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FISI Project - contract n°257118

D4.2.1 ISI member competence profile survey - draft

FISI project executive summary

The FISI project aims at supporting the Integral SatCom Initiative (Technology Platform) in defining a strategic vision on innovation priorities to reinforce the competitiveness of the European SatCom industry and in promoting emerging SatCom architectures in response to EU policy objectives.

Involving leading European satellite manufacturers, Research Institutes/Universities, SME, and a Service provider in the SatCom domain, FISI will serve the interest of all European SatCom industry stakeholders gathered in the ISI technology platform (www.isi-initiative.org) by highlighting and promoting the added value of emerging SatCom architectures in the support of EC grand challenges including broadband for all, security and Future Internet; Harmonising the research and innovation priorities for the European SatCom industry sector; And promoting an ambitious framework program to maintain the technological edge, international competitiveness and market share of the European SatCom industry.

Abstract

This deliverable contains the aggregate results of the ISI Membership Survey managed by FISI project. Results of this report will be made available to the Public through different dissemination means.

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1 Introduction

The first ISI Membership survey aimed at collecting updated information about ISI members' competences and expertise. In particular, data collected in this survey will be used to:

- update the ISI Membership database and mailing lists;
- better understand members' expectations, and to better address their needs through the knowledge and the understanding of their interests towards the ISI Platform activities;
- perform a preliminary gap analysis in order to identify emerging satellite communication areas to be addressed by ISI activities;
- support ISI promotion activities.

The ISI Membership survey was opened on April 2011 through the advertisement on the ISI Platform Web site and the invitation sent to all ISI members to respond to the survey, and it was closed on August 2011. The collected data provide a first overview of ISI membership composition and distribution, competences and interests. A second iteration of this survey enriched thanks to the feedback of the ISI members, will be launched during the second year of the project in order to analyze in detail the gap between the emerging satellite communication areas and the activities carried out within the ISI framework.

2 ISI Membership Survey Structure

The ISI Membership survey was organized in the following 14 sections aiming at collecting information related to members' organization profile, sector, footprint, market as well as members' background, field of expertise and activities carried out in standardization and regulatory bodies in order to better understand members' interests and their actual and potential future involvement in the ISI activities.

1. Compiler personal

- Name
- Email
- Role in organization

2. Organization data

- Name
- Country
- Reference person
- E-mail Reference person

3. Organization sector (according to the ISI classification)

- Manufacturing Industry (IND)
- Network Operation and Service Provision (SNO)
- Small and Medium Enterprise (SME)
- Research & consultancy (RES)
- Association (ASSOC)
- Government/Institutional (GOV)

4. Organization profile

- Ground equipment/technology manufacturing
- Space equipment/technology manufacturing
- Solution vendor
- System prime
- Satellite operator
- Service provider
- Consultancy
- Research institute
- Governmental

5. Footprint

- European
- European member states
- Non European based

6. Institution/Company market

- Global
- Regional
- National
- Local
- Other

7. ISI membership interest (ranking from 0 (very low) to 5 (very high))

- Networking for projects
- Networking for business
- Contributing to the European space policy
- Contribution to the definition of the EC FP8 Work Programmes
- Contribution to the definition of the ESA ARTES Work Programmes
- Monitoring of the SatCom industry sector's research priorities

8. Research/Industrial Activities

- Satellite Communications
- Satellite Earth Observation
- Satellite Navigation systems
- Wireless and cellular communications
- Other

9. Field of expertise

- HW development
- SW development
- Physical layer
- MAC layer and resource management
- Network layer
- Upper layers
- Antennas and RF
- Systems & Architectures
- Ground Segment
- Space Segment
- User Segment
- Services and Apps
- Other

10. Facilities that can be made available to ISI

- Theoretical tools
- Simulation tools
- Real time test beds
- Environmental testing facilities
- Other

11. Activities in standardization bodies

- ETSI
- CEN-CENELEC
- DVB
- IEEE
- 3GPP
- Other

12. Activities in regulatory bodies

- National Spectrum Management Group
- Other

13. Availability to represent ISI at

- Scientific conference
- Events organised at European level
- Events organised at national level
- Events organised at local level

14. Estimated turnover dedicated to SatCom activities in Euro

3 Survey aggregated results

In the following, aggregated results are reported for the questions proposed to the ISI Members.

Hundred ISI Members belonging to eighty-five different organizations replied to the Survey (for the complete list of the members who participated to the consultation see the Annex A). This result exceeds far the expectations and shows the interest of members in being active part of ISI Platform.

3.1 ISI Members distribution per Country

As it can be seen in Figure 1, the ISI Members come from twenty-three different Countries, mainly from Europe but also from Israel, South Korea and USA. This confirms that the ISI Platform activities, aiming at reinforcing the competitiveness of the SatCom industry also in relation with the evolution of the ICT area, rouse the interest of many organizations in different European and non-European countries.

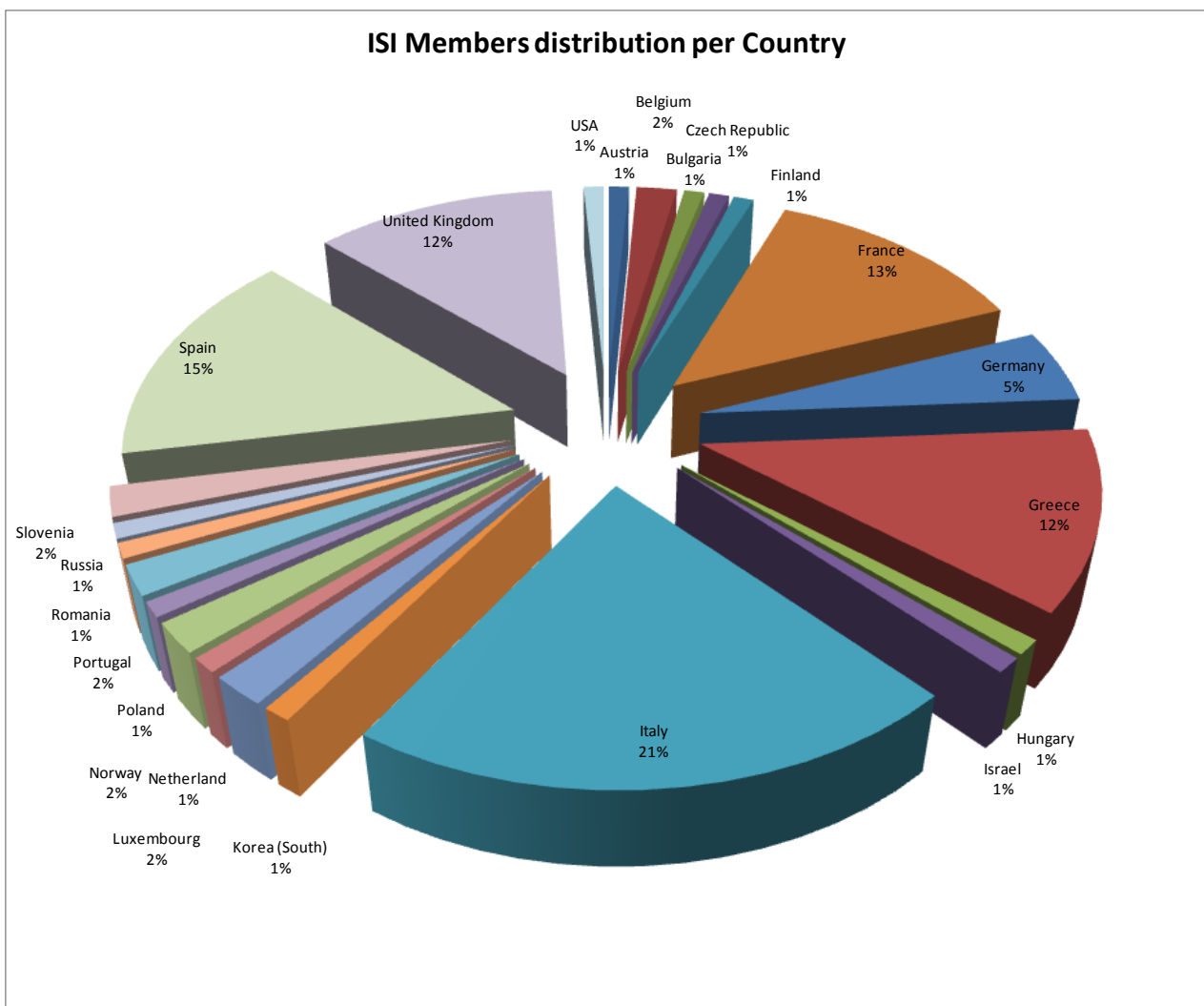


Figure 1: ISI Member distribution per Country

3.2 ISI Membership distribution per organization sector

Apart from the geographical distribution of the ISI members, it is worthwhile highlighting that ISI Membership comes from different organization sectors, mainly from Research and Consultancy (42 %) and Government/Institutional (24%), as shown in Figure 2.

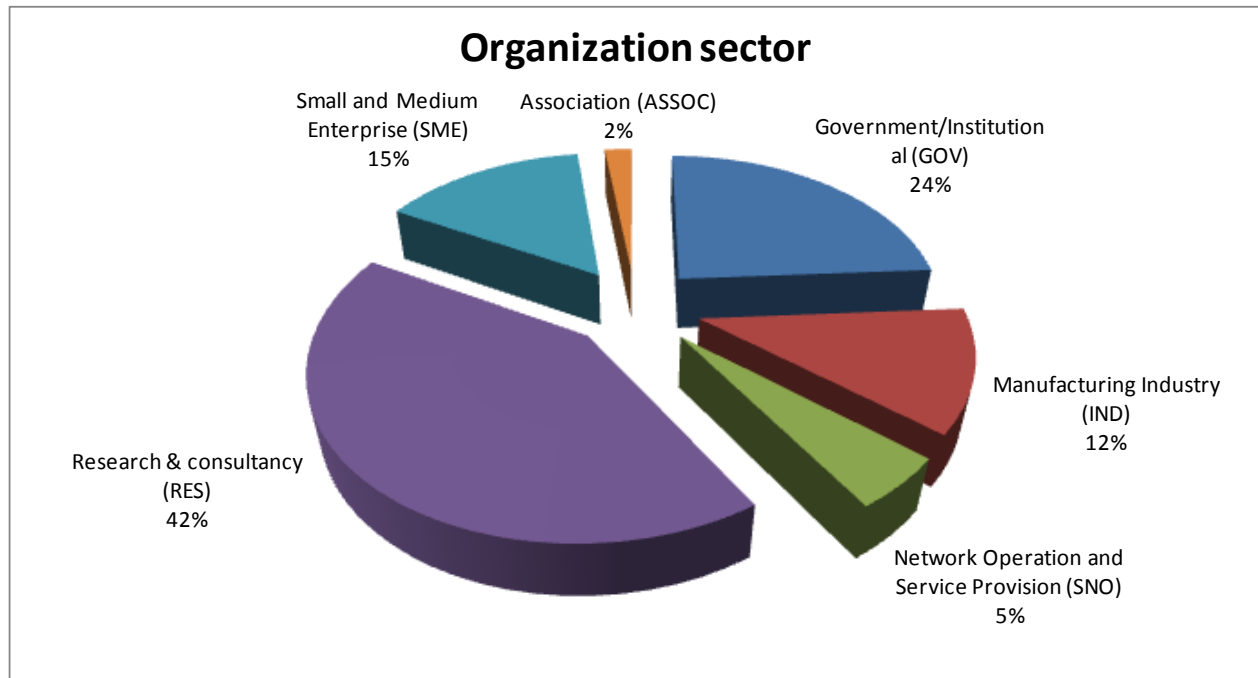


Figure 2: ISI Membership distribution per sector

Such heterogeneous composition is an added value for the Platform and it is in line with its main objectives such as the international cooperation under a global perspective.

3.3 ISI Membership distribution per organization profile

ISI Membership comes from organizations characterized from eight different profiles, in particular from Research institutes (53 %), as reported in the following Figure. This result shows the need to increase the SatCom industrial participation and involvement in the ISI Platform work through, for example, the promotion of ISI vision, strategic research agenda and roadmap in additional relevant events.

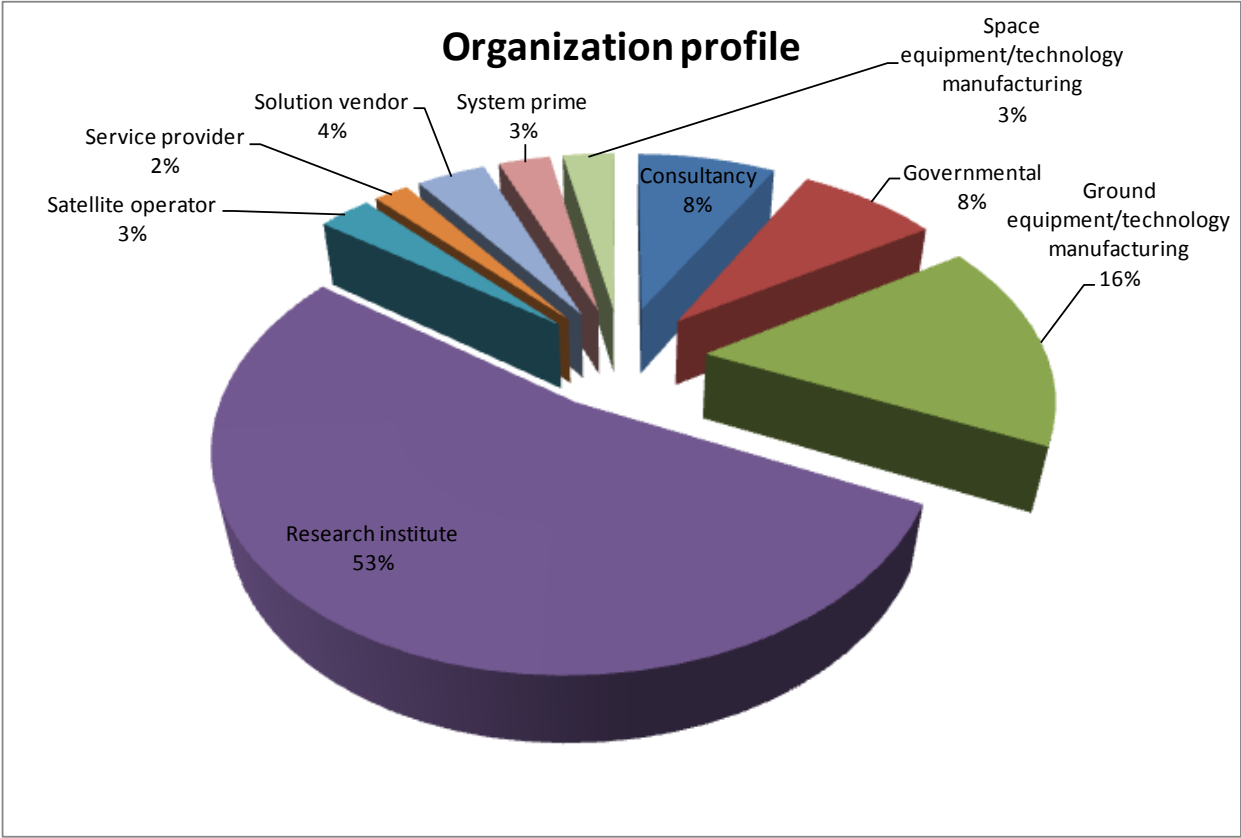


Figure 3: ISI Membership distribution per Organization Profile

3.4 ISI Membership distribution per footprint

The following Figure shows in which Countries ISI members carry out their activities. Most of them (79%) have a European footprint. This means that their activities are carried out at level of Europe in the geographical sense and not only in the European Union states.

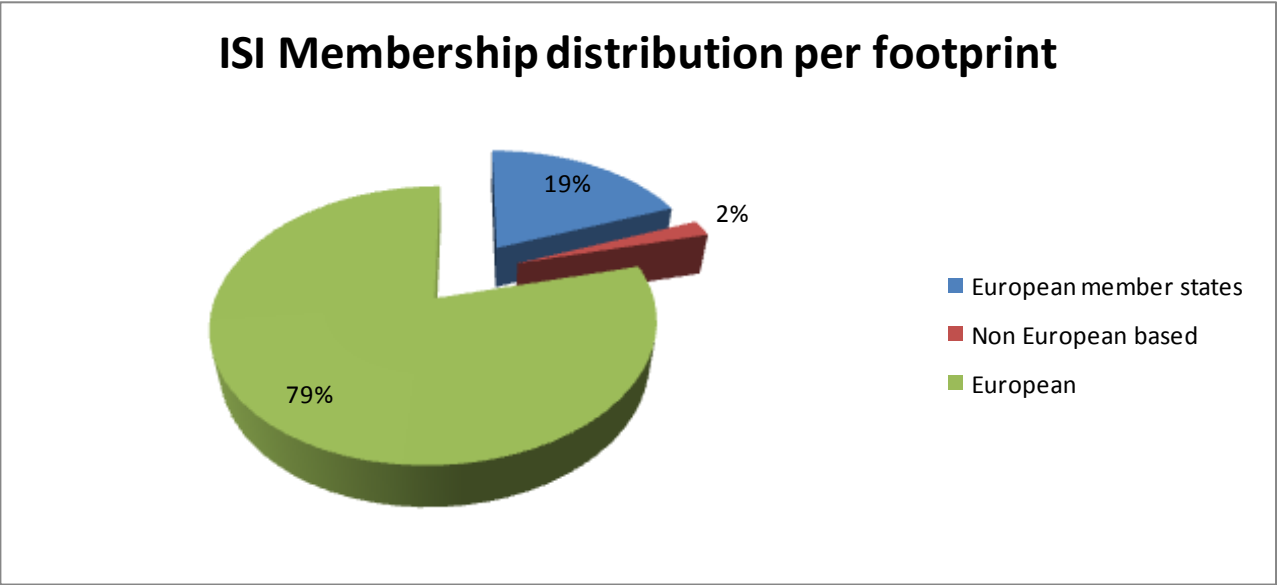


Figure 4: ISI Membership distribution per footprint

Such result is very important for the purpose of the Platform because it shows the great potential of the ISI initiative which aims at promoting satellite communications and their applications as well their integration with other technologies over a large area and beyond Europe. For this reason, it is essential to be able to involve the whole Membership actively in the ISI activities.

3.5 ISI Membership distribution per Institution/Company market type

The data presented in the following confirm the previous ones. Most of ISI members (78%) carry out their business and research activities at international level, having partnerships in different European Countries. Their market extends beyond national borders, mainly at European level, as shown above.

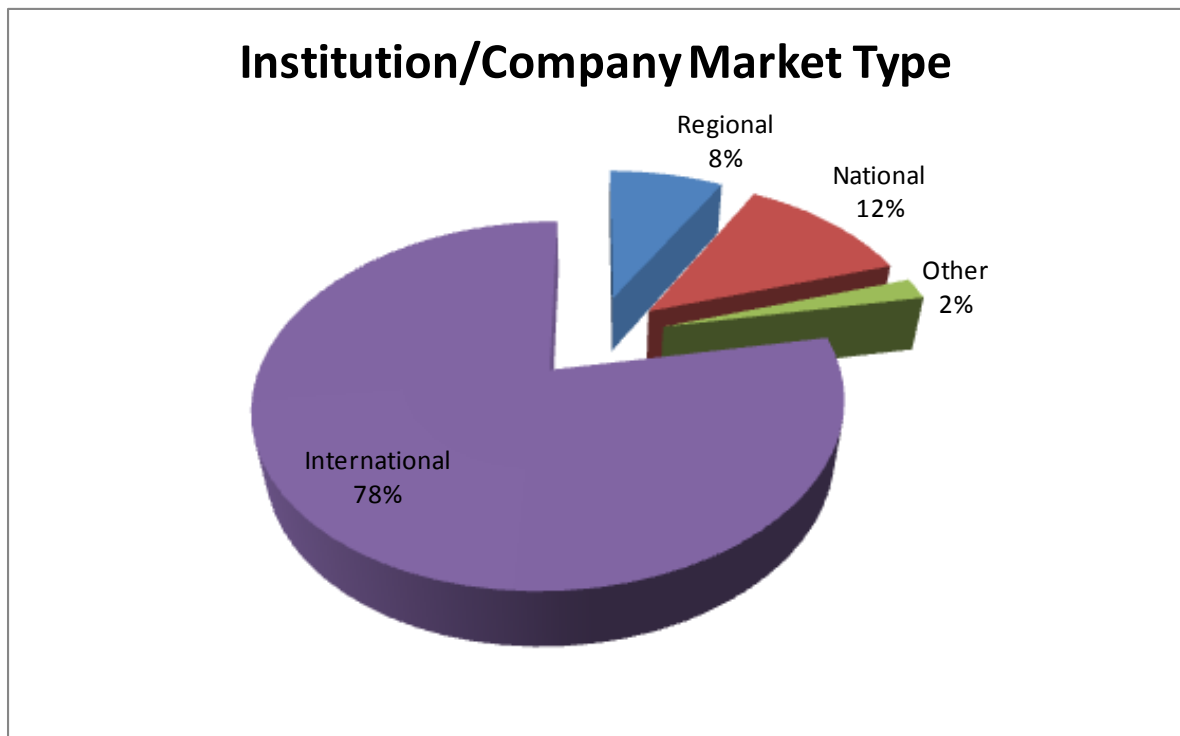


Figure 5: ISI Membership distribution per Market type

3.6 ISI Membership interest

Interest of ISI member in participating the ISI Platform ranges over a wide variety of topics. In particular, ISI members have expressed their opinion related to their motivation to participate in ISI, classifying the topics by priority. The collected data show that they turn to be interested in being active in ISI mainly to have the opportunity to create new consortia for international projects (priority 4.59), to contribute to the definition of EC programmes (priority 4.08) and to monitor the SatCom industry in order to identify research priorities (priority 4.04). This result is in line with the previous one regarding the ISI membership profile which has highlighted the involvement in ISI mainly of Research Institutes. ISI Platform allows all members to be informed and updated on the last issues related to SatCom and to better understand which are the new areas to be investigated in the future in this field.

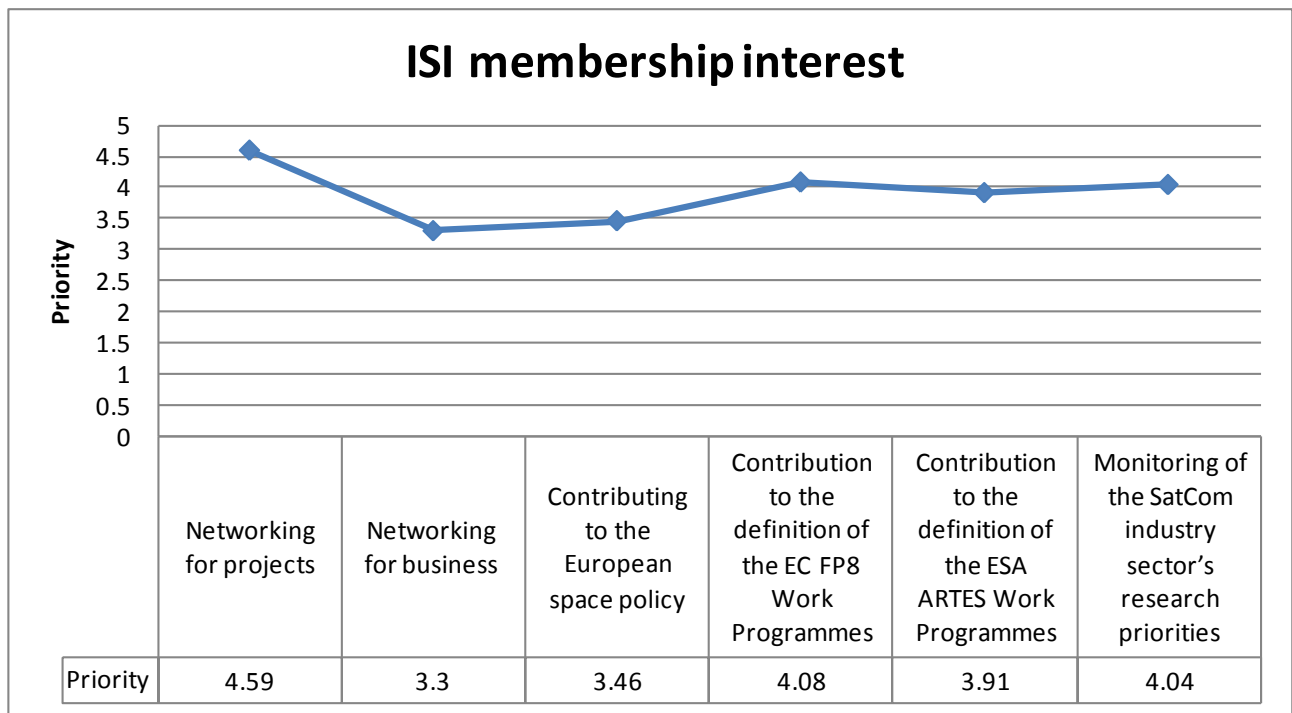


Figure 6: ISI Membership interest

3.7 ISI Membership Research/Industrial Activities

Figure 7 reports the aggregated results regarding the field where ISI members currently carry out their research and industrial activity. In particular, ISI Membership is mainly involved in satellite and wireless communications areas. It is worth noting that the percentage of ISI member involved in Emergency and Disaster recovery is very low against an increasing demand of satellite communications in this field. This shows the need to involve entities and representative active in this area to enlarge the range of key activities carried out by ISI Membership in cooperation with the Platform.

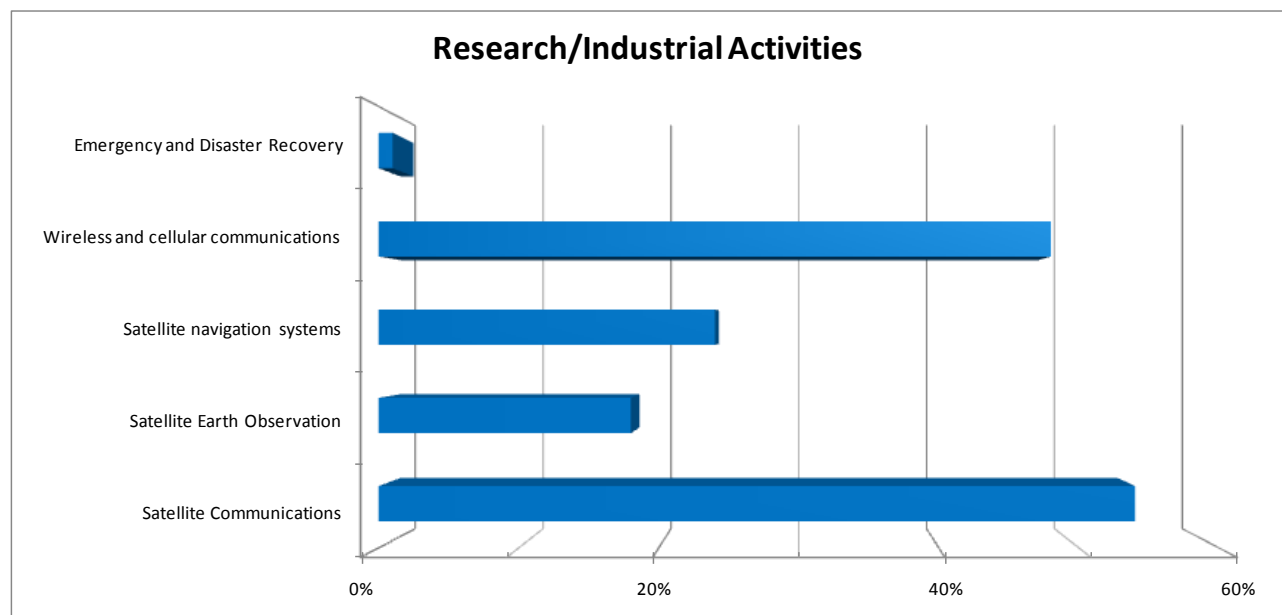


Figure 7: ISI Membership Research/Industrial Activities

3.8 ISI Membership competencies

ISI Membership competencies range over a wide variety of topics: MAC layer and resource management, Network layer, Service and Applications, System & Architectures, etc.

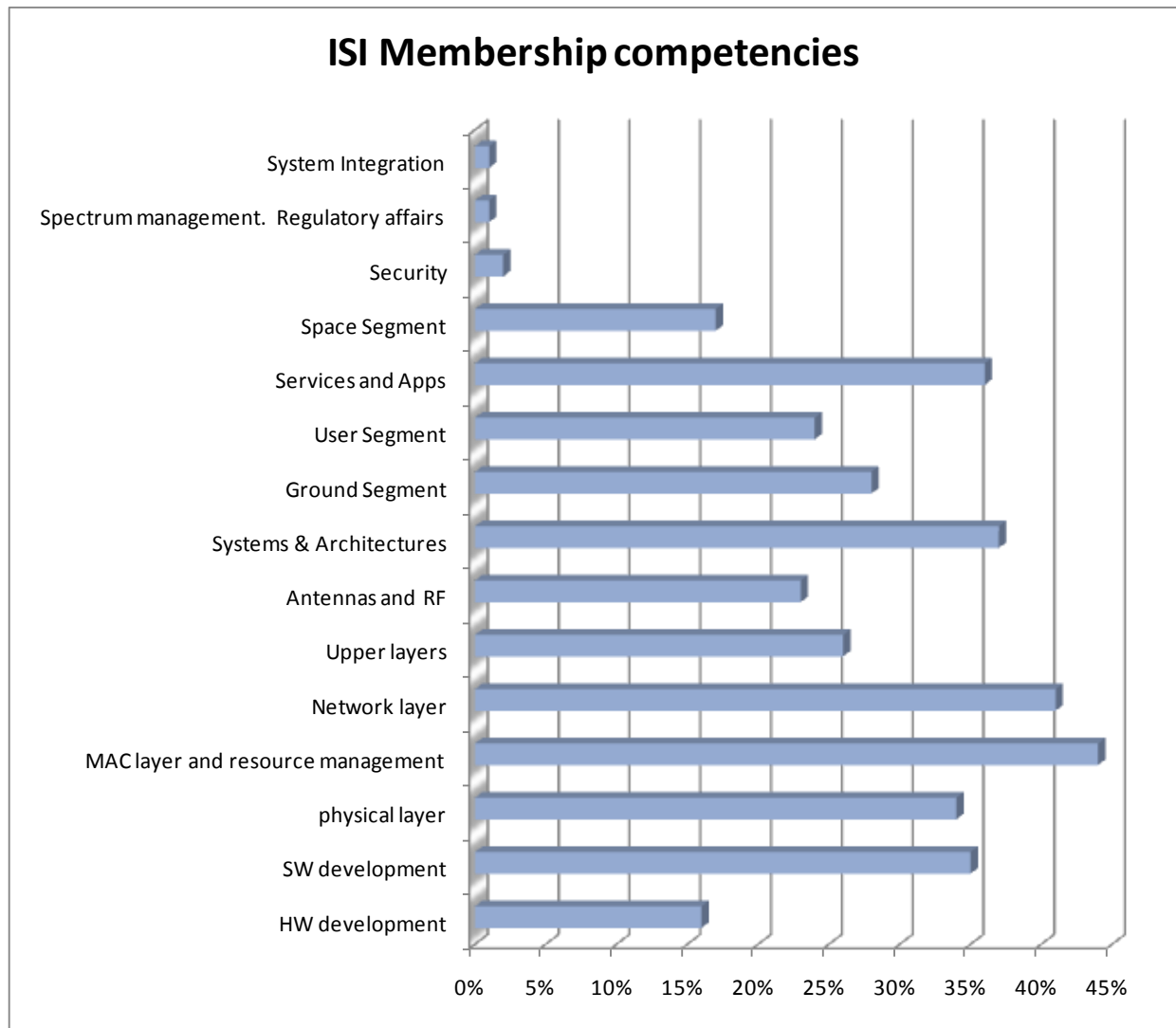


Figure 8: ISI Membership field of expertise

Such result confirms the great potential and the heterogeneous and large expertise present within ISI and it shows how ISI has become the aggregator of the SatCom community.

3.9 Facilities that can be made available to ISI

ISI members are available to share their facilities, such as simulation tools, test beds, with other members. This shows the integration and the cooperation among members which is strongly fostered within the ISI Platform.

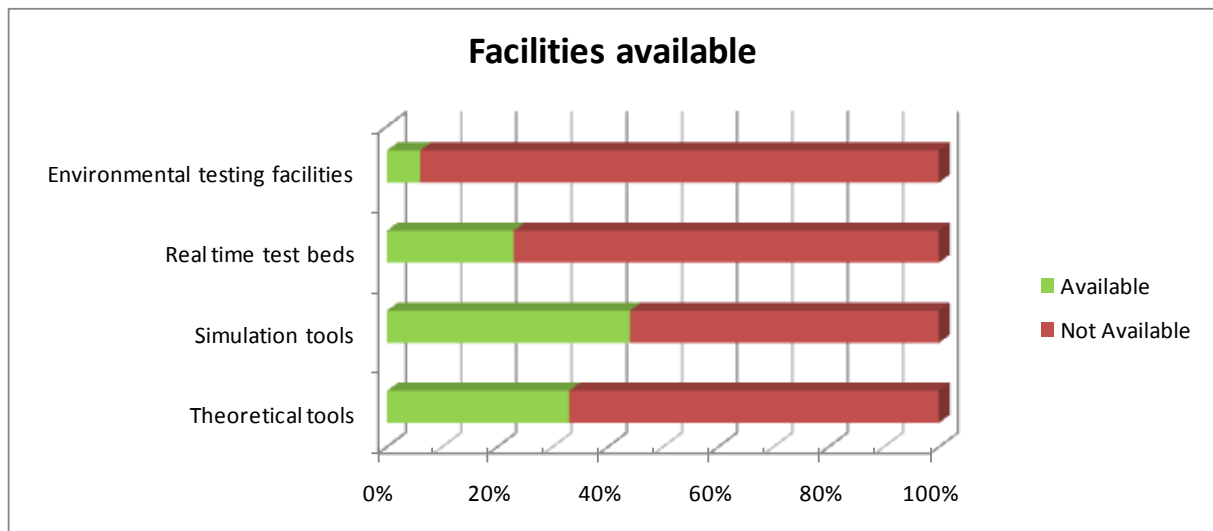


Figure 9: Facilities that can be made available to ISI

3.10 ISI Membership Activity in Standardization Bodies

ISI Membership is very active in standardization bodies, in particular ETSI, DVB and IEEE where standardization activities related to satellite communications and satellite integration with terrestrial networks are carried out.

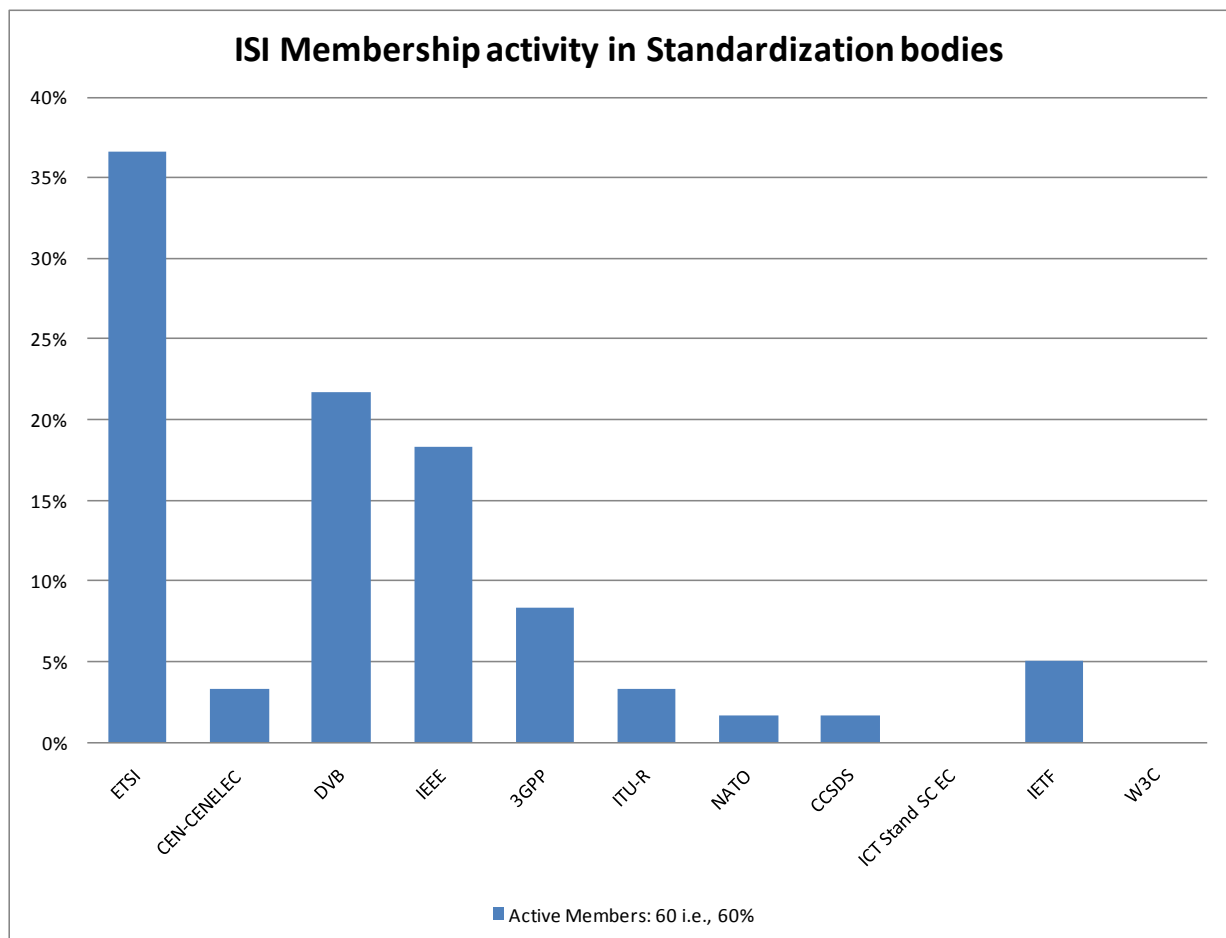


Figure 10: ISI Membership activity in Standardization Bodies

Such result shows how ISI community actively contribute to the promotion and introduction of satellite-based systems in the new standards.

3.11 ISI Membership Activity in Regulatory Bodies

ISI Membership is also active in regulatory bodies, in particular the National Spectrum Management Group which deals with spectrum management related also to satellite communications.

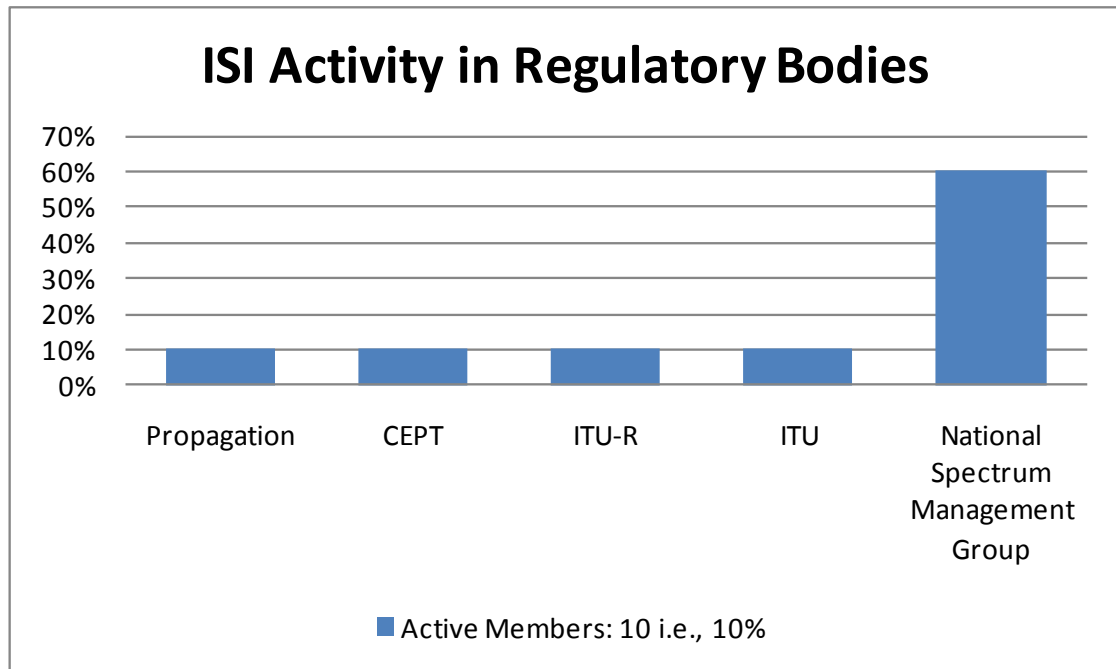


Figure 11: ISI Membership activity in Regulatory Bodies

3.12 Membership availability to represent ISI

Around 50% of ISI Membership is available to represent ISI at events organized at local, national and European level and at scientific conferences. This is a good result because it shows the actual and active participation of the membership to the Platform activities. However, this score should be improved by reinforce the involvement of the membership through the promotion of the ISI activities and the organization of events, such as the ISI SatCom event, which allow the members to meet each other and to take part to the ISI work and discussions.

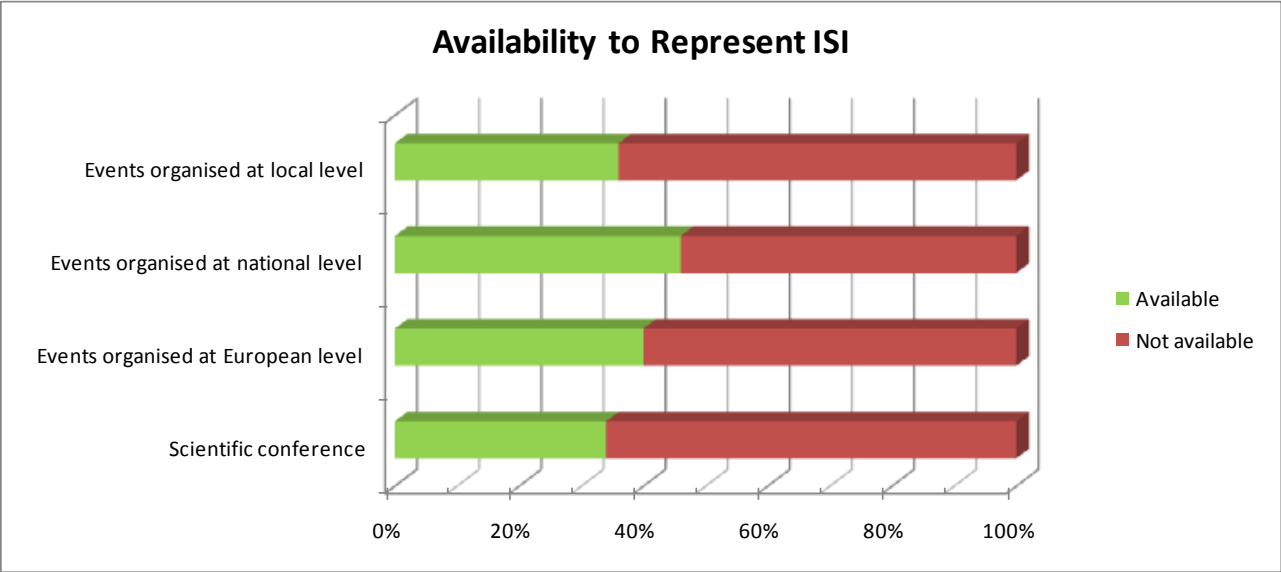


Figure 12: Membership availability to represent ISI

4 Conclusions

This deliverable has reported the aggregated results of ISI Membership survey aimed at collecting information about members' competence and interests. The collected data are very interesting to understand the members' expectations also on the basis of their field of expertise and to provide recommendations for addressing the ISI future work.

A further consultation is envisaged to be launched during the second year of the project which will have the purpose to deepen the knowledge of members' interest to reinforce their involvement within ISI. In particular, the new survey will be enriched with new topics aiming at showing and analyzing the gap between the overall ISI Membership profile and the emerging SatCom areas. This is a key point which will be useful to understand the new areas on which ISI activities should be focused.

5 Annex A – ISI members who replied to the Survey

In the following table, the list of all ISI members who replied to the ISI Membership Survey is reported.

Name	Last Name	Affiliation
Manuel	Lobeira	ACORDE Technologies
Peter	Milne	Aetheric Engineering Ltd
Harald	Skinemoen	AnsuR Technologies AS
Niovi	Pavlidou	Aristotle University of Thessaloniki
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Bernard	Laurent	Astrium
George C.	Polyzos	AUEB-RC, MMLab
Reiner	Hoppe	AWE Communications GmbH
Istvan	Frigyes	Budapest University of Technology and Economics
Barry	Evans	CCSR University of Surrey
Neftis	Atallah	CEDETEL Foundation
Harri	Saarnisaari	Centre for Wireless Communications /University of Oulu
Dumont	Patrick	CNES
Eric	Luvisutto	CNES
Sandrine	Lafont	CNES
Dominique	Pradines	CNES
Franco	Davoli	CNIT
Enrico	Del Re	CNIT
Francesco	Potorti	CNR
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Sebastian	Pantoja	DAS Photonics
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Mario	Marchese	DIST - University of Genoa
Erich	Lutz	Deutsches Zentrum für Luft- und Raumfahrt (DLR)
Jon	Holmes	EMS Satcom UK Ltd
Antonio	Cortés Ferrando	ESPACI S.L.
Ho-Jin	Lee	ETRI(Electronics and Telecommunications Research Institute)
Agnelli	Stefano	Eutelsat
Avi	Gal	Gilat Satellite Networks Ltd
Martin	Jarrold	Global VSAT Forum
Celestino	Gomez Cid	GMV
Carlos	Mosquera	Gradiant
Marcos	Alvarez-Diaz	Gradiant
Baudry	Maxime	IDATE
Carlos	Belmonte	INDRA ESPACIO
Nikos	Dimitriou	Institute of Accelerating Systems and Applications (IASA)
Dimiter	Bogdanov	Institute of Information & Communication Techno(former ICCS)
Fausto	Vieira	Instituto de Telecomunicações
Jose Manuel	Sanchez	Integrasys
Jacques	Magen	InterInnov
Antonis	Valkanas	INTRACOM S.A. Telecom Solutions
Takis	Mathiopoulos	ISARS - National Observatory of Athens
Stelios	Papaharalabos	ISARS, National Observatory of Athens
Diego	Gimenez	ISDEFE
Lucio	Bardelli	ITS spa
Michael	Schmidt	Joanneum Research
Ales	Svigelj	Jozef Stefan Institute
Gorazd	Kandus	Jozef Stefan Institute
Thierry	Gayraud	LAAS-CNRS
Sabino	Titomanlio	M.B.I.

Stefano	Natali	Meteorological and Environmental Earth Observation
Pier Francesco	Lion Stoppato	Mott MacDonald Ltd
Athanasios D.	Panagopoulos	National Technical University of Athens (Mobile Radio Lab)
Georgios	Gardikis	NCSR Demokritos, Inst. of Informatics and Telecommunications
Adams	Geert	Newtec
Laurent	Castanet	ONERA
Julián	Seseña	ROSE Vision
Piotr	Rutkowski	Rotel
Ameil	Cécil	SES
Nima	Azarmgin	SES
Alexander	Markhasin	Siberian State University of Telecommunications and Informat
Roger	Torrenti	Sigma Orionis
Robert D.	Briskman	Sirius XM Radio Inc.
Pantelis-Daniel	Arapoglou	SnT, University of Luxembourg
Konstantinos	Liolis	Space Hellas S.A.
Hans Peter	Lexow	STM Norway
Alejandro Alvarez	Melcon	Technical University Cartagena
Tudor	Palade	Technical University of Cluj-Napoca
Constantinos T.	Angelis	TEIEP – MicTel Lab
Andre	Oliveira	TEKEVER
Nicolas	Chubierre	Thales Alenia Space
Olivier	Sagnes	Thales Communications
Mauro	Montanari	Thales Italia S.p.A.
Jan	Huizenga	TNO
Markus	Werner	TriaGnoSys GmbH
Cristina	Barquín	TTI
Fernando	Las-Heras	Universidad de Oviedo (TSC-UNIOVI)
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Daniele	Tarchi	University of Bologna
Pauline ML	Chan	University of Bradford
Ray	Sheriff	University of Bradford
Maurizio	Murroni	University of Cagliari
Maurizio	Casoni	University of Modena and Reggio Emilia
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Athanasios	Kanatas	University of Piraeus
Antonio	Pietrabissa	University of Rome Sapienza - DIS
Michele	Luglio	University of Rome Tor Vergata
Haitham	Cruickshank	University of Surrey
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Appendix: FISI internal document control

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